Glucose Uptake Assay Kit (Cell-Based)

Cat. No. Kit-1035 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	
Description	Glucose is a ubiquitous energy source in most organisms and plays a pivotal role in cellular metabolism and homeostasis. Cancer cells exhibit increased glucose uptake to support their high proliferation rate. We have developed a fluorescent glucose analog, which just like glucose can be taken up by cells through glucose transporters. However, this glucose analog cannot be fully utilized in glycolysis because of its modification and thus accumulates inside the cells. Fluorescence generated by this fluorescent glucose analog is proportional to the glucose uptake by the cells and can be used to measure glucose uptake using fluorescent microscopy and flow cytometry. To validate the assay, the kit includes phloretin, a natural phenol that inhibits glucose uptake. This easy-to-use, non-radioactive kit allows imaging and accurate measurement of glucose uptake in cultured cells in response to insulin, growth factors etc.
Applications	Measurement of glucose uptake in response to insulin, growth factors, cytokines, mitogens and nutrients, etc. Dual-staining of glucose transporters and glucose uptake Analysis of glucose metabolism and cell signaling in various cell types Screening of anti-diabetic compounds
Storage	-20°C
Shipping	Gel Pack

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Size	50 assays
Kit Components	Analysis Buffer (50X); GluTracker Reagent (100X); GluTracker Enhancer; Phloretin (100X)
Detection method	FACS (488 nm excitation laser) and fluorescent microscope
Features & Benefits	Easy-to-use; Non-radioactive; Image and accurately measure glucose uptake in cultured cells in response to insulin, growth factors etc.

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